Session (Oral) WM1: Space Time Coding
Wednesday, May 5, 2004  TIME: 8:10 – 12:30

1. A Differential Space-Time Code Receiver using the EM-Algorithm
   Michael L.B. Riediger (Simon Fraser University, Canada) and Paul K.M. Ho (Simon Fraser University, Canada) 5165
2. Kalman Filtering for Channel Estimation in Space-Time Coded Systems
   Haizhen Jin (McGill University, Canada) and Harry Leib (McGill University, Canada) 5243
3. Space-Time Coding and Signal Space Diversity in the Presence of Channel Estimation Errors
   Tolga Kurt (University of Ottawa, Canada) and Hakan Delic (Bogazici University, Turkey) 5272
4. Unitary Space-Time Codes from Group Codes: Permutation Codes Variant II
   Terasan Niyomsataya (University of Ottawa, Canada), Ali Miri (University of Ottawa, Canada) and Monica Nevins (University of Ottawa, Canada) 5712
5. Tracking Time-Selective Fading Channels for Space-Time Block Coding in Impulsive Noise
   Ziauddin M. Kamran, T.Kirubarajan, and Alex B. Gershman (McMaster University, Canada) 5800
6. Receive Antenna Selection for Space-Time Block Codes
   Xiang Nian Zeng (Concordia University, Canada) and Ali Ghrayeb (Concordia University, Canada) 6075

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7. Capacity of PPM Ultra-Wideband Communications with Inter Pulse Interference
   Reza Pasand (University of Calgary, Canada), John Nielsen (University of Calgary, Canada), Abu B. Sesay (University of Calgary, Canada) 7028
8. Single-Carrier Concatenated Space-Time Block Coded Transmissions over Selective-Fading Channels
   Tuan Tran (University of Calgary, Canada), Tung X. Lai (University of Calgary, Canada) and Abu B. Sesay (University of Calgary, Canada) 6159
9. Improved Space-Time Trellis Codes with Three and Four Transmit Antennas
   David Bernier (Royal Military College, Canada) and Francois Chan (Royal Military College, Canada) 6816
    Guihua Kang (Zhejiang University, China), Zhaoyang Zhang (Zhejiang University, China), Peiliang Qiu (Zhejiang University, China) 6395
11. Iterative Decoding Algorithm of Lattices
    Mohammad Reza Rafsanjani Sadeghi (Carleton University, Canada), Amir H. Banhashemi (Carleton University, Canada) and Daniel Panario (Carleton University, Canada) 6094
12. Computer Design of Super-Orthogonal Space-Time Trellis Codes
    Brady Laska (Royal Military College, Canada), Dustin Dunwell (Royal Military College, Canada), Francois Chan (Royal Military College, Canada) and Hamid Jafarkhani (University of California at Irvine, USA) 6888
Session (Oral) WM2: CDMA Systems / Advanced Coding
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CHAIR: Room: Chippawa

1. Reverse-Link Power Allocation in Two-Hop Multimedia CDMA Networks
Dave Walsh and Halim Yanikomeroglu (Carleton University, Canada) 6053
2. Performance of Multicode DS/CDMA with Noncoherent M-ary Orthogonal Modulation in the Presence of Timing Errors
Cyril-Daniel Iskander (Florida Atlantic University, USA) 6092
3. An Improved Widely Linear Receiver for Cyclostationary CDMA Systems with OQPSK Modulation
Arash Mirbagheri, Konstantinos N. Plataniotis and Subbarayan Pasupathy (University of Toronto, Canada) 6467
4. BER Performance of STBC over Frequency Selective Fading Channels in the Downlink WCDMA System
Tung X. Lai and Abu B. Sesay (University of Calgary, Canada) 6173
5. An Iterative MMSE-Decision Feedback Multiuser Detector for Space-Time Coded Multicarrier CDMA System
Padam L. Kafle, Abu B. Sesay and J. McRory (TRLabs, Calgary, Canada) 6968
6. A Linear Decoder for Vector Quantization over a CDMA Channel
Ha H. Nguyen (University of Saskatchewan, Canada) 6852

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7. Codesign Implementation of a 3G Base Station Receiver
Sébastien Jomphe and Jean Belzile (Ecole de Technologie Supérieure, Canada), Sofiène Affes (Institut national de la recherche scientifique, énergie, matériaux et télécommunications) and Karim Cheikhrouhou (Institut national de la recherche scientifique, énergie, matériaux et télécommunications) 6087
8. Research on the Session Control Technologies in 3GPP UMTS Networks
Zhou Wenan (Beijing University of Post and Telecom, Beijing, P.R. China), Wang Daoyi (CITIC communications project management Co Ltd.) and Song Junde (Beijing University of Post and Telecom, Beijing, P.R. China) 6687
9. Signal Mappings of 8-ARY Constellations for BICM-ID Systems over a Rayleigh Fading Channel
Nghi Tran (University of Saskatchewan, Canada) and Ha Nguyen (University of Saskatchewan, Canada) 6471
10. A Novel Context Modeling Scheme for Motion Vectors Context-Based Arithmetic Coding
Mahmoud Ghandi (Sharif University of Technology, Iran), Mohammad Mahdi Ghandi (University of Essex, UK) and Mohammad Bagher Shamsollahi (Sharif University of Technology, Iran) 6713
11. A Union Bound Based Evaluation Technique for Convolutionally and Turbo Coded Communication Systems
Bo Xu (McGill University, Canada) and Jan Bajcsy (McGill University, Canada) 6970
12. A Multi-wavelet Packet Modulation in Wireless Communications
Mingli You (Dalhousie University, Canada) and Jacek Ilow (Dalhousie University, Canada) 7302
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Wednesday, May 5, 2004  TIME: 8:10 – 12:30
CHAIR:  Room: Canadiana

1. SDL Modeled Hybrid Error Control Scheme for Reliable Multicast over Internet
   Bo Rong, Alain Servais, Maria Bennani (Universite du Quebec, Canada), Ahmed Elhakeem (Concordia University, Canada) and Michel Kadoch (Universite du Quebec, Canada) 5511

2. An IP Traceback Mechanism for Reflective DoS Attacks
   Bao-Tung Wang (Columbia University) and Henning Schulzrinne (Columbia University) 5885

3. An Approach to Solving a Multicasting Scalability Issue in MPLS Networks Using State Encoding
   Omar Banimelhem (Concordia University, Canada), J. William Atwood (Concordia University, Canada) and Anjali Agarwal (Concordia University, Canada) 6583

4. Multicasting with Delay and Delay Variation Constraints Using Genetic Algorithm
   Moussa Hamdan and Mohamed El-Hawary (Dalhousie University, Canada) 7301

5. Agent-Based Resource Management in Hybrid Wireless Networks
   Rajeev Babbar (University of Calgary, Canada), Abraham O. Fapojuwo (University of Calgary, Canada) and Behrouz H. Far (University of Calgary, Canada) 6050

6. Enhanced Polling Scheme with IEEE 802.11a WLAN
   Taekon Kim, Chang Yeul and Chil-Youl Ynag (Samsung Electronics Co.) 5205

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7. Session-based Service Discovery in Peer-to-Peer Communications
   Ramiro Liscano (University of Ottawa, Canada), Allan Jost and Anand Dersingh (Dalhousie University, Canada) and Hao Hu (Intel China Ltd., China) 6119

8. Average Degradation Degree Fair Adaptation Algorithm in Wireless Network with Mobile Hosts
   Floriano De Rango (University of Calabria, Italy), G. Aloi (University of Calabria, Italy) and S. Marano (University of Calabria, Italy) 6974

9. A Proposed Protocol for Internet Key Exchange (IKE)
   Hossein Haddad (Isfahan University of Technology, Iran), Mehdi Berenjkoub (Isfahan University of Technology, Iran) and Saeed Gazor (Queens University, Canada) 6706

10. An Integrated Scheduling and Buffer Management Scheme for Packet-Switched Routers
    Ren-Jie Pi Beijing, Junde Song, Meina Song (Beijing University of Posts and Telecommunications, China) 5646

11. Multipath Traffic Distribution in MPLS Network
    Zenghua Zhao (Tianjin University, China) and Yantai Shu (Tianjin University, China) 5785

12. Supporting Traditional IP Applications in Active Networks
    Zhigang Jin (Tianjin University, China), Yongmei Luo (Tianjin University, China), Yantai Shu (Tianjin University, China) and Zhifeng Fu (Tianjin University, China) 4989
1. Evaluation of Hierarchical Elastic Medical Image Registration Method
Xiaoyan Xu (University of Guelph, Canada) and Robert D. Dony (University of Guelph, Canada) 6047

2. Images Can be Regenerated from Quantized Biometric Match Score Data
Andy Adler (University of Ottawa, Canada) 5599

3. Lossy Compression of DNA Microarray Images
Naser Faramarzpour (McMaster University, Canada), Shahram Shirani (McMaster University, Canada) and M. Jamal Deen (McMaster University, Canada) 5820

4. Compression of 3D Facial Data
In-Su Park (McMaster University, Canada), Shahram Shirani (McMaster University, Canada) and David W. Capson (McMaster University, Canada) 5992

5. Neural Network Texture Segmentation in Equine Leg Ultrasound images
Qi Huang (University of Guelph, Canada) and Robert D. Dony (University of Guelph, Canada) 6040

6. Gait Analysis and Recognition using Angular Transforms
Nikolaos V. Boulgouris (University of Toronto, Canada), Konstantinos N. Plataniotis (University of Toronto, Canada) and Dimitris Hatzinakos (University of Toronto, Canada) 6057

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7. A Fuzzy Classifier Approach to Assessing the Progression of Adolescent Idiopathic Scoliosis from Radiographic Indicators
Peter O. Ajemba (University of Alberta, Canada), Lino Ramirez (University of Alberta, Canada), Nelson G. Durdle (University of Alberta, Canada), Doug L. Hill (Glenrose Rehabilitation Hospital, Canada) and V. J. Raso (Glenrose Rehabilitation Hospital, Canada) 6115

8. Semi Real-time algorithm for Posture Estimation of the Human Face using a 3-D Reference Picture
Daisuke Takahashi (Kanto Gakuin University, Japan) and Noriyoshi Okamoto (Kanto Gakuin University, Japan) 5891

9. ECG Signal Compression by Using Multiquadric Interpolation
Pond Boonyaves (Chulalongkorn University, Thailand), Porntip Paisalsing (Chulalongkorn University, Thailand), Pian Totarong (National Institute of Metrodoloy, Thailand) and Somchai Jiapunkul (Chulalongkorn University, Thailand) 5896
1. Design Issues of Direct Conversion Radio Frequency Receivers in SiGe Technology
Roghoyeh Salmeh, Brent J. Maundy and Ronald H. Johnston (University of Calgary, Canada) 4315

2. Design and Realization of a RF Transceiver for Marine Identification Systems
Mohamad El-Asmar (Ecole de Technologie Supérieure, Canada) and Ammar B. Kouki (Ecole de Technologie Supérieure, Canada) 5664

3. Physics-Based Analysis of Variable RF MEMs Capacitors
Kousseil Ben Ahmed (Ecole de technologie supérieure, Canada), Ammar B. Kouki (Ecole de Technologie Supérieure, Canada) and A. Khebir (Ecole de Technologie Supérieure, Canada) 5823

4. Low-Voltage, Low-Power and Low Phase Noise 2.4 GHz VCO for Medical Wireless Telemetry
Ahmed Fakhr, M. Jamal Deen and Hubert deBruin (McMaster University, Canada) 6058

5. A Low-power 5 Mb/s turbo Decoder for Third-Generation Wireless Terminals
Ibrahim Al-Mohandes and Mohamed Elmasry (University of Waterloo, Canada) 7482

6. A Bipolar Voltage Variable Attenuator for Radio Frequency Applications
You Zheng and Carlos E. Saavedra (Queen’s University, Canada) 4813

7. Low-Power and High-Speed Digital Correlator for Radio Astronomy
Christoph Spuhler (University of Rochester, USA), Yi Chang (University of Rochester, USA), Brent Carlson (Herzberg Institute of Astrophysics, Canada) and Peter Dewdney (Herzberg Institute of Astrophysics, Canada) 6191

8. An Adaptive Algorithm for Efficient Electromagnetic Field Calculations
Mina Ayatollahi (University of Waterloo, Canada) and Safieddin Safavi-Naeini (University of Waterloo, Canada) 6947

9. Low-Voltage and Low-Power 1.9GHz Body-Input Downconversion Mixer
Nabeel Jafferali (McMaster University, Canada) and M. Jamal Deen (McMaster University, Canada) 6093

10. A Clock Frequency Doubler using a Passive Integrator and Emitter-Coupled Comparator Circuit
Carlos E. Saavedra and Yang Zhang (Queen’s University, Canada) 5042

11. A Flexible Digital Platform for Real-Time Control of RF Components with Application to MIMO Channel Emulation
Pierre-Paul Carpentier (École de technologie supérieure, Canada), Ammar Kouki (École de Technologie Supérieure, Canada) and Claude Thibeault (École de technologie supérieure, Canada) 5793

12. Sources of Linearity Degradation in LINX Transmitters for Hybrid and Outphasing Combiners
Ahmed Birafane (École de Technologie Supérieure, Canada) and Ammar B. Kouki (École de Technologie Supérieure, Canada) 5668
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CHAIR: Room: Hennipen North

1. A New Rate Adaptation Framework for MPEG-4 FGS Video over IP
Colin Huang (Ryerson University), Canada and Ling Guan (Ryerson University), Canada 6154

2. Choice of Threshold of the Huber-Markov Prior in MAP Based Video Resolution Enhancement
Hu He (State University of New York at Buffalo, USA) and Lisimachos P. Kondi (State University of New York at Buffalo, USA) 5841

3. Algorithms for Estimating Information Distance with Application to Bioinformatics and Linguistics
Alexei Kaltchenko (Wilfrid Laurier University) 6949

4. FFT Filter Bank based Majority and Summation CFAR Detectors: A Comparative Study
Sichun Wang and Robert Inkol (Defence Research and Development Canada) 5944

5. Probability Distribution of Speech Signal Envelope
Saeed Gazor (Queen's University) and Reza Rashidi Far (Queen's University) 6964

6. A Relationship between the Structures of the Radix-2 DIT FHT and Complex-Valued FFT Algorithms
Saad Bouguezel (Concordia University, Canada), M.O. Ahmad (Concordia University, Canada) and M.N.S Swamy (Concordia University, Canada) 5975

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7. Multifractal Characterization for Classification of Network Traffic
Robert L. Barry (University of Manitoba, Canada) and Witold Kinsner (University of Manitoba, Canada) 6112

8. A Comparative Study of FFT-Summation and Polyphase-FFT CFAR Detectors
Robert Inkol and Sichun Wang (Defence Research and Development Canada) 6000

9. New Compactly Supported Scaling And Wavelet Functions Derived From Gegenbauer Polynomials
Luciana R. Soares (Federal University of Pernambuco, Brazil), Helio M. Oliveira (Federal University of Pernambuco, Brazil) and Renato J. de Sobral Cintra (Federal University of Pernambuco, Brazil) 7026

10. A Switching Constant False Alarm Rate Technique for High Frequency Surface Wave Radar
Xiaoli Lu (University of Victoria, Canada), Jian Wang (Raytheon Canada Ltd., Canada), Reza Dizaji (Raytheon Canada Ltd., Canada), Zhen Ding (Raytheon Canada Ltd., Canada) and A. M. Ponsford (Raytheon Canada Ltd., Canada) 6811

11. Analysis of Clutter Distribution in Bistatic High Frequency Surface Wave Radar
Jian Wang (Raytheon Canada Ltd., Canada), Reza Dizaji (Raytheon Canada Ltd., Canada) and A. M. Ponsford (Raytheon Canada Ltd., Canada) 6052

Haosheng Zhou (University of Winnipeg, Canada) 5112

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Session (Oral) WM7: Information and Intelligent Systems
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CHAIR: | Room: Haida

1. Evaluation of Request Distribution Schemes for Web-Server Clusters
Ramandeep Bhinder (TRLabs, Canada), Muthucumaru Maheswaran (McGill University, Canada) and Jeff Diamond (TRLabs, Canada) 6171

2. Knowledge Representation and Processing in Intelligent Software Measurement System (ISMS)
Tong Chen (University of Calgary, Canada) and Behrouz Homayoun Far (University of Calgary, Canada) 5578

3. Decision Support and Automation for Malfunction Handling and Optimization in a Feedback Production Control System for Complex Production Facilities
Clemens Martin (University of Ontario Institute of Technology, Canada) 6157

4. Feelings Based Computer Music
Maria Goga (School of Music, Romania), and Nicolae Goga (Technical University Eindhoven, The Netherlands) 5796

5. An Application of Decision Support to Network Intrusion Detection
Hongyu Yang (Tianjin University, China), Lixia Xie (University of China, China) and Jizhou Sun (Tianjin University, China) 6299

6. Ontology-Based Intelligent Information Retrieval System
Wenjie Li (Tianjin University, China), Zhiyong Feng (Tianjin University, China), Yong Li (Tianjin University, China) and Zhoujun Xu (Tianjin University, China) 5441

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7. Information Estimations of Complexity Structures
Alexander Shaydurov (McGill University, Canada) 5345

Vu Nguyen-Cong (Nong Lam University, Viet Nam and Yingxu Wang (University of Calgary, Canada) 6142

Mountassar Maamoun, Blida University) and Boualem Lachi (Departement dInformatique, USTHB) 6662

10. Design of Dual Port RAM for Parallel Volume Rendering System
Xiaotu Li, Jizhou Sun, Weifang Nie (Tianjin University, China) and Yurong Wang (Capital University of Economics and Business, China) 5155

11. Considerations for the Development of Large Scale Mobile Network Management System
Man Yi, Shang Jing, Song Junde and Song Mei (Beijing University of Posts and Telecommunications, China) 5984

12. Collaborative learning system based on Wireless Mobile equipments
Zhaopeng Meng (Tianjin University, China), Jianjun Chu (Tianjin University, China) and Lianfang Zhang (Tianjin University, China) 5619
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Session (Oral) WM8: Power Systems Stability and Renewable Energy Systems

Wednesday, May 5, 2004
TIME: 8:10 – 12:30

CHAIR: Room: Cree

1. Damping Power System Oscillations Using a Genetic Algorithm Based Unified Power Flow Controller
Sherif O. Faried and Amr A. Eldamaty (University of Saskatchewan, Canada) 4349

2. The Effect of Capacity Gaming on the Cost of System Reliability
Donald McGillis Ian Fichtenbaum, Markian Michailuk and Francisco Galiana (McGill University, Canada) 5889

Chad Abbey and Geza Joos (McGill University, Canada) 5954

4. Islanding Protection Evaluation of Inverter-based Grid-connected Hybrid Renewable Energy System
Mamadou Lamine Doumbia, Kodjo Agbossou and Tapan K. Bose (Université de Quebec à Trois-Rivières, Canada) 5966

5. Parameterize Pre-Compensator Design for Static Synchronous Series Compensator (SSSC)
Jafar Ghaisari (Isfahan University of Technology, Iran) and Alireza R. Bakhshai (Queen's University, Canada) 6174

6. Investigation of Self-Excited Induction Generators for Wind Turbine Applications
Mohamed Orabi (Kyushu University, Japan), Mohamed Z. Youssef (Queen's University, Canada) and P. K. Jain (Queen's University, Canada) 6544

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7. Energy Optimization in Rapid Flow Variation Systems
Kaushik Bhattacharjee (Senior Member, IEEE), Alok Goyal (TERI), Suman Mazumdar (Flaktt India), Manish Kumar (IIT Kharagpur, India) 6521

8. Domain of Stability of AC/DC Power Systems
Nikamal Fernandopulle (Independent Electric Market Operator) and Robert T.H. Alden (Bob Alden Technologies) 5546

Mohamed Z. Youssef (Queen's University, Canada), Praveen K. Jain (Queen's University, Canada), Elsayed Abdelaleem Mohamed (Ain Shams University, Egypt) and Mohamed Orabi (Kyushu University, Japan) 4284

10. Relationship of Chaos and Small Signal Stability Region
Jia Hongjie (Tianjin University, China), Yu Yixin (Tianjin University, China), Zhang Pei (EPRI, USA) Yu Xiaodan (Tianjin University, China), Huang Chunhua (Tianjin University, China) 4627

11. Effect of the Fuel Cell on Distribution System Stability
Francisco Jurado, Manuel Valverde (University of Jaen), Jose Carpio (U. Nacional de Education) 4263

12. Three Routes to Chaos in Power Systems

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Jia Hongjie (Tianjin University, China), Yu Yixin (Tianjin University, China), Yu Xiaodan (Tianjin University, China), Huang Chunhua (Tianjin University, China), Zhang Pei (EPRI, USA)
Session (Oral) WM9: Control Systems I
Wednesday, May 5, 2004  TIME: 8:10 – 12:30
CHAIR:  Room: Tuscarora

1. Model Predictive Control for Bilateral Teleoperation Systems with Time Delays
   Jie Sheng (University of Illinois at Urbana-Champaign, USA) and Mark W. Spong
   (University of Illinois at Urbana-Champaign, USA) 6555

2. On Identification of Non-linear Two-Channel Hammerstein Systems
   Mirek Pawlak (University of Manitoba, Canada) and Ruixiang Song (University of
   Manitoba, Canada) 5282

3. A new Z-domain Continued Fraction Expansion and its use in the Generation of
   Stable Transfer Functions
   Venkatanarayana Ramachandran (Concordia University, Canada), Ling Luo (Concordia
   University, Canada) and C.S. Gargour (University of Quebec, Canada) 5300

4. Effects of Control Systems Time Delay on The Performance of Direct Harmonics
   Elimination
   Jenny Zheng Zhou (Manitoba HVDC Research Centre, Canada), Athula Rajapakse and
   Aniruddha M. Gole (University of Manitoba, Canada) 5725

5. Performance of a Non Linear Controller Based IPMSM Drive
   Jason Lau (Lakehead University, Canada) and Mohammad N. Uddin (Lakehead
   University, Canada) 5828

6. Control Schemes for Stabilization of Force-Reflecting Teleoperators with
   Communication Delay
   Ilia G. Polushin (Lakehead University, Canada), Abdelhamid Tayebi (Lakehead
   University, Canada) and Horacio J. Marquez (University of Alberta, Canada) 6874

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7. An Algorithm for Locating Microseismic Events
   Brian L. F. Daku (University of Saskatchewan, Canada), J. Eric Salt (University of
   Saskatchewan, Canada), Li Sha (University of Saskatchewan, Canada) 6978

8. Using Model Predictive Control for Real-Time Control over the Internet
   Samer Mansour (Dalhousie University, Canada), Bill Robertson (Dalhousie University,
   Canada), Bill Phillips (Dalhousie University, Canada) and Guy Kember (Dalhousie
   University, Canada) 5855

9. An Integrated Robotic Laser Range Sensing System for Automatic Mapping of
   Wide Workspaces
   Phillip Curtis (University of Ottawa, Canada) and Pierre Payeur (University of Ottawa,
   Canada) 5983

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10. An Architectural Framework for a Distributed Process Control Information System
Varanon Uraikul (University of Regina, Canada), Christine Chan (University of Regina, Canada) and Paitoon Tontiwachwuthikul (University of Regina, Canada) 6079

11. Mobile Robot Position Determination Using Data from Gyro and Odometry
Farouk Azizi (Purdue University Calumet, USA) and Nasser Houshangi (Purdue University Calumet, USA) 5814

12. A Web-Based 3D Virtual Robot Remote Control System
Xiaoli Yang (Lakehead University, Canada), Dorina C. Petriu (Carleton University, Canada), Thom E. Whalen (CRC, Canada), Emil M. Petriu (University of Ottawa) 5898
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Session (Oral) WM10: Electric Machines and Motor Drives
Wednesday, May 5, 2004       TIME: 8:10 – 12:30
CHAIR:                      Room: Oneida

1. Development and Interfacing of a Generic Switched Reluctance Motor Model for an EMTP
Athula D. Rajapakse (University of Manitoba, Canada), Aniruddha M. Gole (University of Manitoba, Canada) and Dharshana Muthumani (Manitoba HVDC Research Center, Canada) 5225

2. Experimental Methods for Measuring the q-Axis Saturation Characteristics of Synchronous Machines
Narayan C. Kar (University of Windsor, Canada) and Ahmed M. El-Serafi (University of Saskatchewan, Canada) 5519

3. Performance Analysis of a Reluctance Synchronous Motor Under Abnormal Operating Condition
Prabhakar Neti (University of Victoria, Canada) and Subhasis Nandi (University of Victoria, Canada) 5694

4. Power Transformer Critical Diagnostics for Reliability and Life Extension
Muhammad Arshad (American University of Sharjah) and Syed M. Islam (Curtin University of Technology, Australia) 5734

5. Saturation in Synchronous Generators During Unbalanced Faults
Kwok-Wai Louie (Manitoba HVDC Research Centre, Canada) and Jose R. Marti (University of British Columbia, Canada) 5853

6. Finite Element Analysis of Shaft Eddy Currents in High Speed Asynchronous Machines
Erich Schmidt (Vienna University of Technology, Austria) 5925

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7. Alternative Network Element Sets
J. J. Narraway, University of New Brunswick, Canada 9001

8. Flux Estimation of Induction Machines with the Linear Parameter-Varying System Identification Method
Juntao Pan, David Westwick and Ed Nowicki (University of Calgary, Canada) 6910

9. Impedance Characterization of a Six-Phase Synchronous Generator-Rectifier System Using Average-Value Model
Juri Jatskevich and Tarek About-Seoud (University of British Columbia, Canada) 6929

10. Performance Analysis of a 4-Switch, 3-Phase Inverter Based Cost Effective IPM Motor Drives
Mohammad Nasir Uddin (Lakehead University, Canada), Tawfiq S. Radwan (Memorial University of Newfoundland, Canada) and M. A. Rahman (Memorial University of Newfoundland, Canada) 4639

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1. Pixel Architectures for Digital X-Ray Mammography in Crystalline Silicon Technology
Mohammad Hadi Izadi and Karim S. Karim (Simon Fraser University) 6320

2. Symbolically Defined Empirical Large-Signal Model for HBTs Compared to the Gummel-Poon Model
Ammar Issaoun (École de Technologie Supérieure, Canada), A.B. Kouki (École de Technologie Supérieure, Canada) and F.M. Ghannouchi (École Polytechnique, Canada) 4203

3. Reducing the Temperature Effect on a CMOS Transconductance and its Application in g-C Filters
Yuelin Cui and R. Raut (Concordia University, Canada) 5446

4. Single-Ended DSL Line Tester
Bernado Celay and David Dodds (TRLabs/University of Saskatchewan, Canada) 6869

5. Custom Column Readout Circuitry to Extend the Dynamic Range of a Si:H Current Mediated Pixel Amplifiers for Large Area Diagnostic X-Ray Imaging Applications
Tony Ottaviani and Karim S. Karim (Simon Fraser University, Canada) 6316

6. A Multi Frequency Fresnel Lens using a Perforated Dielectric
Irfan Kadri (Carleton University, Canada), Mike Britton (Ellistar Sensor Systems), Langis Roy (Carleton University, Canada) 5888

7. High-Level Symbolic Simulation Using Integer Equations
Amir Masoud Gharehbaghi (Sharif University of Technology), Shaahin Hessabi (Sharif University of Technology) and Mohammad Reza Eshghi (Sharif University of Technology) 6025
1. Blind Decision Feedback Equalizer based on High Order MCMA
Idir Chahed (Ecole de Technologie Supérieure, Canada), Jean Belzile (Ecole de Technologie Supérieure, Canada) and Ammar B. Kouki (Ecole de Technologie Supérieure, Canada) 6843

2. A Postprocessor for an Interval-Based M-ary Detection System that Monitors Long-Duration Input
Erin R. Budd (University of New Brunswick, Canada) and Maryhelen Stevenson (University of New Brunswick, Canada) 5936

3. Characteristic function approach for higher order crossings with application for speed estimation
Lian Zhao (Ryerson University, Canada) 7543

4. Approximation of Phase and Envelope Distribution of Gaussian Random Amplitude-Modulated Signals
Stephen H. Sung (Calian Ltd., Canada) and Yifeng Zhou (Defence R&D Canada) 6372

5. Performance Analysis of Certain Scheduling Disciplines in Hardware
Padmini Vellore (Memorial University of Newfoundland, Canada) and R. Venkatesan, (Memorial University of Newfoundland, Canada) 5813

6. Packet Loss Probability for DiffServ over Heterogeneous MPLS Multicast Networks: A Simulation Study
Abdullah AlWehaibi (Concordia University, Canada), Michel Kadoch (Ecole de technologie superieure, Canada) and Ahmed ElHakeem (Concordia University, Canada) 6909

7. A New Method in Blind Estimation of Fast Time-Varying Channels Based on Subspace Method
AmirReza Momen (Iran Telecommunication Research Center (ITRC), Iran), Saeed Masajedian (Iran Telecommunication Research Center (ITRC), Iran), Yasin Miar (Iran Telecommunication Research Center (ITRC), Iran) and Jahangir Dadkhah Chime (Iran Telecommunication Research Center (ITRC), Iran) 6627
Session (Oral) WA3: Robotics and Control
CHAIR:                        Room: Hennipen North

1. Robot Path Planning with Multiresolution Probabilistic Representations: A Comparative Study
   Martin Soucy (University of Ottawa, Canada) and Pierre Payeur (University of Ottawa, Canada) 5980

2. Microscopic Dynamics of Cytobots
   Blake W. Podaima (TRLabs, Canada) and Thuraiappah Vaseeharan (TRLabs, Canada),
   Richard Gordon (TRLabs, Canada) 6137

3. Advanced Robotics Mechatronics System: Emerging Technologies for Interplanetary Robotics
   George Bailak (MD Robotics Limited, Canada), Bruno Rubinger (MD Robotics Limited, Canada),
   Moksoon Jang (University of Toronto, Canada) and Francis Dawson
   (University of Toronto, Canada) 6716

4. An Improvement of Self-localization for Omnidirectional Mobile Robots using a New Odometry Sensor and Omnidirectional Vision
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2. A 12-bit, 50 MS/s SiGe BiCMOS Sample-and-Hold Residue Amplifier
Siddharth Devarajan and Ranald J. Gutmann and Kenneth Rose (Rensselaer Polytechnic Institute, USA)

3. New CML Latch Structure for High Speed Prescaler Design
Muhammad Usama (Carleton University, Canada) and Tad Kwasniewski (Carleton University, Canada)

4. Generation of Analog and Digital Transfer Functions having a Monotonic Magnitude Response
Venkatanarayana Ramachandran (Concordia University, Canada), C. S. Gargour (University of Quebec, Canada) and Ravi P. Ramachandran (Rowan University, USA)

5. Design of a High-Speed (255,239) RS Decoder using 0.18uM CMOS
Anh Dinh and Daniel Teng (University of Saskatchewan, Canada)

6. Synchronous Sequential Circuits Design Using Evolutionary Algorithms
Ahmed T. Soliman (Ain Shams University, Egypt) and Hazem M. Abbas (Mentor Graphics Egypt, Egypt)

7. A 10 b, 40 Msamples/s, 25 mW Pipeline Analog to Digital Converter
Amir Amirabadi (University of Tehran, Iran), Mohammad Moghaddam Tabrizi (University of Tehran, Iran), M. Sharifkhani (University of Waterloo, Canada) and Omid Shoaei (University of Tehran, Iran)
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